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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/539,047

04/02/2007

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EXAMINER

EDWARDS, JERRAH

ART UNIT

PAPER NUMBER

3664

NOTIFICATION DATE

DELIVERY MODE

01/20/2011

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentmail@whda.com

## Office Action Summary

Application No.

10/539,047

Applicant(s)

NAKADAI ET AL.

Examiner

JERRAH EDWARDS

Art Unit

3664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☒ Claim(s) 2 and 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 17 December 2002. It is noted, however, that applicant has not filed a certified copy of the JP 2002-365764 application as required by 35 U.S.C. 119(b).

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are the visual components of the "robotics visual and auditory system."

4. Claims 4-6 are replete with grammatical and idiomatic errors, including phrases lacking appropriate articles and proper subject/verb agreement, such as "extracts motor event," "module which conduct," "module to respond the case," and "so to respond each speaker" in claim 4. Similar mistakes appear throughout the claim 5, and claim 6 is written using both the past and present tenses. Appropriate correction is required.

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5. Claims 4-5 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claims 4 and 5 recite the limitation "his face event from each speaker's face recognition and localization" in the limitation beginning with "a face module..."; as well as "the auditory event," "the face event", "said auditory, face and motor events", and "said events" in the limitation beginning with "an association module". There is insufficient antecedent basis for these limitations in the claim.

7. Claim 13 recites, "it recognizes the speaker's name...", however, no specific structure or combination has been recited following the preamble to clarify to which of the numerous previously recited modules the term "it" refers.

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Asano (U.S. Patent No. 7,031,917) in view of Yamada et al. (Yamada et al., "Robust speech recognition with speaker localization by a microphone array," Spoken Language, 1996. ICSLP 96. Proceedings, Fourth International Conference on, vol.3, no., pp.1317-1320 vol.3, 3-6 Oct 1996). Asano discloses a speech recognition system using sets of

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acoustic models. Yamada et al. discloses a speech recognition system that detects speaker direction.

10. **Regarding claim 1**, Asano discloses a plurality of acoustic models (Fig. 9), a speech recognition engine for executing speech recognition processes to separated sound signals from respective sound sources using acoustic models (Fig. 3, speech recognition unit 41B, and see Fig. 10), and a selector for integrating a plurality of speech recognition process results obtained by the speech recognition process (Fig. 10 at S3), selecting one of the speech recognition process results (Fig. 10 at S5) and that the speech recognition engine uses each of said acoustic models separately for one sound signal separated by sound source separation, and executes said speech recognition process in parallel (col. 13, lines 41-59). As to the remaining limitations, Asano does not explicitly discuss these features, however, Yamada et al. discloses that in order to respond the case where a plurality of speakers speak, the acoustic models are provided with respect to each speaker and each direction (pg. 1319, section 3.1, where the second acoustic speaker (Gaussian noise source) is considered to be the second speaker). Yamada et al. teaches that its system attains a higher speech recognition performance (Abstract). It would have been obvious for one of skill in the art at the time of the invention to use the features taught by Yamada et al. with the system of Asano in order to attain a higher speech recognition performance.

***Allowable Subject Matter***

11. Claims 2 and 3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 2-13 are rejected under 35 U.S.C. 112, second paragraph, but would be allowable if rewritten to overcome the rejections.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JERRAH EDWARDS whose telephone number is 571-270-3044. The examiner can normally be reached on Monday through Friday, 9:00 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. E./

Examiner, Art Unit 3664

/KHOI TRAN/

Supervisory Patent Examiner, Art Unit 3664